



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/073,434	02/11/2002	Paul W. Novell	0325.00530	4793

21363 7590 07/16/2004
CHRISTOPHER P. MAIORANA, P.C.
24840 HARPER
ST. CLAIR SHORES, MI 48080

EXAMINER

KNOLL, CLIFFORD H

ART UNIT	PAPER NUMBER
----------	--------------

2112

DATE MAILED: 07/16/2004

3

Please find below and/or attached an Office communication concerning this application or proceeding.

2

Office Action Summary

Application No.

10/073,434

Applicant(s)

NOVELL ET AL.

Examiner

Clifford H Knoll

Art Unit

2112

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-17 and 20-21 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang (2003/0101311).

Regarding claim 1, Chang discloses first circuit configured to communicate as a host through a first interface (e.g., para. 58); a second circuit configured to communicate through second interface as a host when in a first mode and as a peripheral when in a second mode (e.g., para. 77); and a third circuit configured to (i) control said first and said second circuits and (ii) transfer information between said first and said second circuits (e.g., para. 75, "personal computer").

Regarding claim 2, Chang also discloses a first device coupled to said first interface (e.g., para. 77).

Regarding claim 3, Chang also discloses the first device comprises a legacy USB device (e.g., para. 3).

Regarding claim 4, Chang also discloses a second device coupled said second interface (e.g., para. 77).

Regarding claim 5, Chang also discloses the second device is an USB OTG dual role device (e.g., para. 75).

Regarding claim 6, Chang also discloses the second device comprises a legacy USB device (e.g., para. 77).

Regarding claim 7, Chang also discloses the first circuit is a USB controller (e.g., para. 75, "personal computer").

Regarding claim 8, Chang also discloses the second circuit comprises a USB 2.0 OTG DRD controller (e.g., para. 75).

Regarding claims 9 and 10, Chang also discloses selected from the group and configuring in response to an instruction (e.g., para. 75, "personal computer").

Regarding claims 11 and 12, Chang discloses firmware and software (e.g., para. 5).

Regarding claim 13, Chang also discloses the integration of a device (e.g., para. 77).

Regarding claim 14, Chang also discloses the apparatus is standalone (e.g., para. 75, "personal digital assistant").

Regarding claim 15, Chang also discloses the apparatus is configured to add USB OTG DRD capabilities with no modifications to the first device (e.g., para. 78, here, the interface is the "host-device multiplexer" and the "circuit 401" is designed to provide OTG capability to the connected host).

Art Unit: 2112

Regarding claim 16, Chang discloses means communicating with a legacy USB device (e.g., para. 58); means for communicating as a USB dual role device (e.g., paras. 75, 77); and means controlling and transferring information between said means communicating with a legacy USB device and said means communicating as a USB OTG dual role device (e.g., para. 75, "personal computer").

Regarding claim 17, Chang discloses providing a host interface (e.g., para. 78, "host-device multiplexer 405"), an OTG host/peripheral interface (e.g., para. 77), and communicating information between the host and the OTG interfaces (e.g., para. 77).

Regarding claim 20, Chang also discloses polling host and OTG host/peripheral interface for an OUT token, and sending data (e.g., para. 6).

Regarding claim 21, Chang also discloses computer readable media (e.g., para. 5).

Claims 18 and 19 are rejected under 35 U.S.C. 102(e) as being anticipated by Chang in view of inherent features of the USB/OTG standards, as evidenced by USB rev 2.0 ("USB Specification, Rev. 2.0") and OTG rev 1.0 ("On-The-Go Supplement to the USB 2.0 Specification, Rev. 1.0").

Regarding claim 18, Chang does not expressly mention enumeration and descriptors to indicate OTG DRD capability; however, this is an inherent feature of the OTG standard, as evidenced by USB rev 2.0 (for enumeration) and OTG rev 1.0.

Art Unit: 2112

Regarding claim 19, Chang does not expressly mention the use of NAK and IN tokens; however this is an inherent feature of the USB 2.0 standard (e.g., USB rev 2.0, pp. 233-234).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chang (US 2003/0101308) and Garney (US 2004/0008684) both disclose details on USB tokens (i.e., NAK, IN, OUT). McAlear (US 6721332) discloses a different host to USB interaction with further polling details. Chaiken (US 6128732) teaches the implementation of hardware extensions to enable legacy devices on a USB bus (e.g., col. 1, lines 34-36). Douhet (US 2003/0104835) and Matsuda (US 2003/0030412) both disclose USB/OTG implementations. Cato (US 6754811) discloses a one means to allow a USB hub to function as a host. Finally, *USB On-The-Go Basics* provides background information on USB/OTG protocol.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Clifford H Knoll whose telephone number is 703-305-8656. The examiner can normally be reached on M-F 0630-1500.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark H Rinehart can be reached on 703-305-4815. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2112

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



chk

Khanh Dang
Primary Examiner